

RAW SEQUENCE LISTING

**The Biotechnology Systems Branch of the Scientific and Technical
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Application Serial Number: 10/540,084

Source: PUT/10

Date Processed by STIC: 6/29/05

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PCT

RAW SEQUENCE LISTING

DATE: 06/29/2005

PATENT APPLICATION: US/10/540,084

TIME: 14:01:11

Input Set : A:\Sequence Listing (RTF Format).txt

Output Set: N:\CRF4\06292005\J540084.raw

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3 <110> APPLICANT: Collins, Mary et al.
5 <120> TITLE OF INVENTION: ANTIBODIES AGAINST PD-1 AND USES THEREFOR
7 <130> FILE REFERENCE: 08702.6098-00000
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/540,084
C--> 9 <141> CURRENT FILING DATE: 2005-06-17
9 <160> NUMBER OF SEQ ID NOS: 58
11 <170> SOFTWARE: PatentIn version 3.1
13 <210> SEQ ID NO: 1
14 <211> LENGTH: 384
15 <212> TYPE: DNA
16 <213> ORGANISM: Homo sapiens
18 <400> SEQUENCE: 1
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21 acctgcgcta tttctggtgg ctccatcggc tctggtggct ccatacagaag tactagggtg 120
23 tggagttggg tccgccagtc cccagggaag gggctggagt ggataggcga aatctatcat 180
25 agtgggagca ccaactacaa cccgtccctc aagagtcgcg tcaccatatc actagacaag 240
27 tctaggaatc acttctccct gaggtgaac tctgtgaccg ccgcggacac ggccgtttat 300
29 tactgtgcga gacaggacta cggtgactcc ggcgactggg acttcgatct gtggggcaag 360
31 gggacaatgg tcaccgtctc ctca 384
34 <210> SEQ ID NO: 2
35 <211> LENGTH: 128
36 <212> TYPE: PRT
37 <213> ORGANISM: Homo sapiens
39 <400> SEQUENCE: 2
41 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Val Val Lys Pro Ser Gly
42 1 5 10 15
44 Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Gly Ser Ile Gly Ser Gly
45 20 25 30
47 Gly Ser Ile Arg Ser Thr Arg Trp Trp Ser Trp Val Arg Gln Ser Pro
48 35 40 45
50 Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Tyr His Ser Gly Ser Thr
51 50 55 60
53 Asn Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Leu Asp Lys
54 65 70 75 80
56 Ser Arg Asn His Phe Ser Leu Arg Leu Asn Ser Val Thr Ala Ala Asp
57 85 90 95
59 Thr Ala Val Tyr Tyr Cys Ala Arg Gln Asp Tyr Gly Asp Ser Gly Asp
60 100 105 110
62 Trp Tyr Phe Asp Leu Trp Gly Lys Gly Thr Met Val Thr Val Ser Ser
63 115 120 125
65 <210> SEQ ID NO: 3
66 <211> LENGTH: 330
67 <212> TYPE: DNA

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68 <213> ORGANISM: Homo sapiens

70 <400> SEQUENCE: 3

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71 aattttatgc tgactcagcc ccactctgtg teggagtctc cggggaagac ggtaaccatc 60
73 tcctgcaccc gcagcagtgg cagcattgcc agcaactctg tgcagtggta ccagcagcgc 120
75 ccgggcagtt cccccaccac tgtgatctat gaggataacc aaagaccctc tggggtcctt 180
77 gatcggttct ctggctccat cgacagctcc tccaactctg cctccctcac cgtctctgga 240
79 ctgaagactg aggacgaggc tgactactac tgtcagtctt ctgatagcag cgctgtggta 300
81 ttcggcagtg ggaccaagct gaccgtccta 330

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84 <210> SEQ ID NO: 4

85 <211> LENGTH: 110

86 <212> TYPE: PRT

87 <213> ORGANISM: Homo sapiens

89 <400> SEQUENCE: 4

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91 Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Glu Ser Pro Gly Lys
92 1 5 10 15
93 Thr Val Thr Ile Ser Cys Thr Arg Ser Ser Gly Ser Ile Ala Ser Asn
94 20 25 30
96 Ser Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
97 35 40 45
99 Ile Tyr Glu Asp Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
100 50 55 60
102 Gly Ser Ile Asp Ser Ser Ser Asn Ser Ala Ser Leu Thr Val Ser Gly
103 65 70 75 80
105 Leu Lys Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Ser Asp Ser
106 85 90 95
108 Ser Ala Val Val Phe Gly Ser Gly Thr Lys Leu Thr Val Leu
109 100 105 110

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111 <210> SEQ ID NO: 5

112 <211> LENGTH: 357

113 <212> TYPE: DNA

114 <213> ORGANISM: Homo sapiens

116 <400> SEQUENCE: 5

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117 gaggtgcagc tgggtgcagtc tggagctgag gtgaagaagc ctggggcctc agtgaaagtc 60
119 tcctgcaagg cttctgggta cagatttacc agctacggca tcagctgggt gcgacaggcc 120
121 cctggacaag ggcttgagtg gatgggatgg atcagcgctt acaatggtaa cacaaactac 180
123 gcacagaagc tccagggcag agtcaccatg accacagaca catccacgaa cacagcctac 240
125 atggagctga ggagcctgag atctgacgac acggccgtgt attactgtgc gagagacgcg 300
127 gattatagta gtgggtctgg gtactggggc caggaaccc tggtcaccgt ctctca 357

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130 <210> SEQ ID NO: 6

131 <211> LENGTH: 119

132 <212> TYPE: PRT

133 <213> ORGANISM: Homo sapiens

135 <400> SEQUENCE: 6

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137 Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
138 1 5 10 15
140 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Arg Phe Thr Ser Tyr
141 20 25 30
143 Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
144 35 40 45

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146 Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
147      50                      55                      60
149 Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Asn Thr Ala Tyr
150 65                      70                      75                      80
152 Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
153                      85                      90                      95
154 Ala Arg Asp Ala Asp Tyr Ser Ser Gly Ser Gly Tyr Trp Gly Gln Gly
155                      100                      105                      110
157 Thr Leu Val Thr Val Ser Ser
158      115
160 <210> SEQ ID NO: 7
161 <211> LENGTH: 324
162 <212> TYPE: DNA
163 <213> ORGANISM: Homo sapiens
165 <400> SEQUENCE: 7
166 tcctatgagc tgactcagcc accctcggtg tcagtgtccc caggacagac ggccaggatc 60
168 acctgttctg gagatgcatt gccaaagcaa tatgcttatt ggtaccagca gaagccaggc 120
170 caggccccctg tgatggttat atataaagac actgagaggc cctcagggat ccctgagcga 180
172 ttctctggct ccagctcagg gacaaaagtc acgttgacca tcagtggagt ccaggcagaa 240
174 gacgaggctg actattattg tcaatcagca gacaacagta ttacttatag ggtgttcggc 300
176 ggagggacca aggtcaccgt ccta                                     324
179 <210> SEQ ID NO: 8
180 <211> LENGTH: 108
181 <212> TYPE: PRT
182 <213> ORGANISM: Homo sapiens
184 <400> SEQUENCE: 8
185 Ser Tyr Glu Leu Thr Gln Pro Pro Ser Val Ser Val Ser Pro Gly Gln
186 1      5                      10                      15
188 Thr Ala Arg Ile Thr Cys Ser Gly Asp Ala Leu Pro Lys Gln Tyr Ala
189      20                      25                      30
191 Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Met Val Ile Tyr
192      35                      40                      45
194 Lys Asp Thr Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly Ser
195      50                      55                      60
197 Ser Ser Gly Thr Lys Val Thr Leu Thr Ile Ser Gly Val Gln Ala Glu
198 65                      70                      75                      80
200 Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Ala Asp Asn Ser Ile Thr Tyr
201      85                      90                      95
203 Arg Val Phe Gly Gly Gly Thr Lys Val Thr Val Leu
204      100                      105
206 <210> SEQ ID NO: 9
207 <211> LENGTH: 357
208 <212> TYPE: DNA
209 <213> ORGANISM: Homo sapiens
211 <400> SEQUENCE: 9
212 caggtgcagc tgggtgcaatc tggggctgag gtgaagaaac ctggggcctc agtgagggtt 60
214 tcctgcaagg catctggata caccctcacc agttactata ttactgggt ggcacaggcc 120
216 cctggacaag ggcttgagtg gatgggaata atcaacccta gaggtgccac cataagctac 180
218 gcacagaagt tccagggcag agtcaccatg accagggaca cgtccacgag tacagtctac 240

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220 atggaactga gaaacttgaa atctgaggac acggccctgt attactgtgc tactgcaggc 300
222 atctatggtt ttgactttga ctactggggc agaggaaccc tggtcaccgt ctctca 357
225 <210> SEQ ID NO: 10
226 <211> LENGTH: 119
227 <212> TYPE: PRT
228 <213> ORGANISM: Homo sapiens
230 <400> SEQUENCE: 10
231 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
232 1 5 10 15
234 Ser Val Arg Val Ser Cys Lys Ala Ser Gly Tyr Thr Leu Thr Ser Tyr
235 20 25 30
237 Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
238 35 40 45
240 Gly Ile Ile Asn Pro Arg Gly Ala Thr Ile Ser Tyr Ala Gln Lys Phe
241 50 55 60
243 Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
244 65 70 75 80
246 Met Glu Leu Arg Asn Leu Lys Ser Glu Asp Thr Ala Leu Tyr Tyr Cys
247 85 90 95
249 Ala Thr Ala Gly Ile Tyr Gly Phe Asp Phe Asp Tyr Trp Gly Arg Gly
250 100 105 110
252 Thr Leu Val Thr Val Ser Ser
253 115
255 <210> SEQ ID NO: 11
256 <211> LENGTH: 333
257 <212> TYPE: DNA
258 <213> ORGANISM: Homo sapiens
260 <400> SEQUENCE: 11
261 cagtctgccc tgactcagcc tgccctccgtg tctgggtctc ctgggcagtc gatcaccatc 60
263 tctcgactg gaaccagtaa tgacgttggt gggtataatt atgtctctg gtaccaacat 120
265 caccaggca aagccccc aaactcatcatt tatgatgtca ctaaccggcc ctcagggggt 180
267 tctgatcgct tctctggctc caagtctggc aacacggcct ccctgaccat ctctgggctc 240
269 ctggctgagg acgagggtga ttattactgc agctcataca caattgttac caatttcgag 300
271 gttcttttcg gcggaggac caagctgacc gtc 333
274 <210> SEQ ID NO: 12
275 <211> LENGTH: 111
276 <212> TYPE: PRT
277 <213> ORGANISM: Homo sapiens
279 <400> SEQUENCE: 12
281 Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
282 1 5 10 15
284 Ser Ile Thr Ile Ser Cys Thr Gly Thr Ser Asn Asp Val Gly Gly Tyr
285 20 25 30
287 Asn Tyr Val Ser Trp Tyr Gln His Pro Gly Lys Ala Pro Lys Leu
288 35 40 45
290 Ile Ile Tyr Asp Val Thr Asn Arg Pro Ser Gly Val Ser Asp Arg Phe
291 50 55 60
293 Ser Gly Ser Lys Ser Gly Asn Thr Ala Ser Leu Thr Ile Ser Gly Leu
294 65 70 75 80

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296 Leu Ala Glu Asp Glu Gly Asp Tyr Tyr Cys Ser Ser Tyr Thr Ile Val
297           85                      90                      95
299 Thr Asn Phe Glu Val Leu Phe Gly Gly Gly Thr Lys Leu Thr Val
300           100                     105                     110
302 <210> SEQ ID NO: 13
303 <211> LENGTH: 381
304 <212> TYPE: DNA
305 <213> ORGANISM: Homo sapiens
307 <400> SEQUENCE: 13
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310 acctgcactg tctctggtgg ctccatcagc agtggtgctt attactggag ctggatccgc 120
312 cagcaccagc ggaagggcct ggagtggatt gggtagatct attacaatgg gaacacgtac 180
314 tacaaccagt ccctcaggag tctagttacc atatcagtag acgcgtctaa gaaccagttc 240
316 tccctgaagc tgagctctgt gactgccgcg gacacggccg tctattactg tgcgagagcg 300
318 tctgattacg tttggggggg ttatcgttat atggatgctt ttgatatctg gggccgggga 360
320 accctgggtca ccgtctcctc a                                     381
323 <210> SEQ ID NO: 14
324 <211> LENGTH: 127
325 <212> TYPE: PRT
326 <213> ORGANISM: Homo sapiens
328 <400> SEQUENCE: 14
330 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
331 1           5                      10                      15
333 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
334           20                      25                      30
336 Ala Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
337           35                      40                      45
339 Trp Ile Gly Tyr Ile Tyr Tyr Asn Gly Asn Thr Tyr Tyr Asn Pro Ser
340           50                      55                      60
342 Leu Arg Ser Leu Val Thr Ile Ser Val Asp Ala Ser Lys Asn Gln Phe
343 65           70                      75                      80
345 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
346           85                      90                      95
348 Cys Ala Arg Ala Ser Asp Tyr Val Trp Gly Gly Tyr Arg Tyr Met Asp
349           100                     105                     110
351 Ala Phe Asp Ile Trp Gly Arg Gly Thr Leu Ile Thr Val Ser Ser
352           115                     120                     125
354 <210> SEQ ID NO: 15
355 <211> LENGTH: 336
356 <212> TYPE: DNA
357 <213> ORGANISM: Homo sapiens
359 <400> SEQUENCE: 15
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362 tcttgttctg gaagcaactc caacatcgga agtaattctg taaactggta ccagcagctc 120
364 ccaggaacgg cccccaaact cctcatctat ggtaataatc agcggccctc aggggtccct 180
366 gaccgattct ctgggtccaa gtctggcacc tcagcctccc tggccatcag tgggtccag 240
368 tctgagaatg aggctgatta ttactgtgca gcatgggatg acagcctgaa tgggtccgga 300
370 ttcggccgag ggaccaaggt caccgtccta ggtgag                                     336
372 <210> SEQ ID NO: 16

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VERIFICATION SUMMARY

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PATENT APPLICATION: US/10/540,084

TIME: 14:01:12

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L:9 M:270 C: Current Application Number differs, Replaced Current Application No

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date